

A “Third Way” on Network Neutrality

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Over the last several months, the debate over “network neutrality” has taken an unfortunate turn on Capitol Hill. Initially, there appeared to be a shared concern among Democrats and Republicans that network operators (notably the cable and telco broadband providers) might, under certain circumstances, engage in conduct that would limit innovation by application developers at the edge of the network (say, the Googles and eBays of the world). More recently, however, Democrats and Republicans have parted ways—at least in the debate over the House Commerce Committee legislation – the so-called “Barton bill” (H.R. 5252, “The Communications Opportunity, Promotion, and Enhancement Act”). In a recent vote that went almost entirely along party lines, each side hurled epithets at the other, both claiming that the other side’s position would destroy the Internet as we know it.

The current legislative landscape, reflecting the polarized state of debate, largely focuses on more extreme approaches to the issue. The Barton bill, for example, might well provide less regulatory oversight than exists under current law. In particular, by providing only specifically limited regulatory authority to the Federal Communications Commission (FCC), the bill arguably cuts back on the existing scope of the FCC’s ancillary jurisdiction authority to regulate broadband providers.¹ Moreover, by establishing a prescribed regulatory regime, the Barton bill also risks limiting the scope of available antitrust oversight under the Supreme Court’s *Trinko* decision.²

¹ See Philip J. Weiser, “Toward A Next Generation Regulatory Regime,” 35 *Loyola Law Review*, 41 (2003) (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=454380).

² See *Verizon v. Trinko*, 540 U.S. 398 (2004); Philip J. Weiser, “The Relationship of Antitrust and Regulation in A Deregulatory Era,” *Antitrust Bulletin*, 50 (2005) (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=814945).

In contrast, bills calling for more aggressive network neutrality regulation tend to overly limit the freedom of broadband providers. The Markey bill (H.R. 5273, "The Network Neutrality Act of 2006"), for example, limits the opportunity of broadband providers to provide and charge for higher quality of service levels.³ In so doing, the bill would limit the evolution of the Internet and the ability of broadband providers to reap rewards for their investment in broadband deployment.

We believe that the current state of the network neutrality debate, like many polarized issues, denies the reasonable concerns articulated by each side and obscures the contours of a sensible solution. In this paper, we outline both the reasonable concerns of each side in the debate with respect to the future of the Internet, as well as the claims made by each side that we believe are not factually correct or economically supportable. We hope that by doing so, and by placing the issues into a proper context, we can shed light on the underlying issues as well as articulate the essential elements of a sensible and effective solution.

In short, we propose a three-part, "third-way" solution:

- Congress should require broadband providers to state their broadband access and usage policies in clear terms. These terms should specify the level of bandwidth, amount of latency (delay), and any limitations on the ability of consumers to access the content or services of their choice. The FCC should monitor such behavior and take action against those firms that fail to comply with them. In addition, any firm selling "broadband Internet access" must make available a basic and growing level of open, unmanaged Internet access. Firms that do not meet this FCC-defined requirement would be prohibited from calling any of their services "broadband."
- In order to ensure that broadband providers do not abuse their market power, Congress should charge the FCC with the responsibility of overseeing the use of discriminatory access arrangements to make sure that any such arrangements do not harm competition (and consumers). This "antitrust-like" approach would require that the FCC manage all relevant proceedings on an expedited basis and under an adjudicative model (as opposed to a legislative-like one).
- Congress should provide financial incentives to companies investing in broadband networks (allowing first-year expensing of broadband investments and exempting broadband services from federal, state, and local taxation), but only if broadband providers provide a best-efforts, open Internet data pipe to their customers with average speeds at least as fast as the evolving FCC definition.

³ It is becoming difficult to keep track of the various bills addressing network neutrality without a scorecard. For such a scorecard, see Anne Broche, "Net Neutrality Field in Congress Gets Crowded," *CNET News.com* (May 19, 2006) (http://news.com.com/2102-1028_3-6074564.html?tag=st.util.print). Most of the bills, as we note in the text, either provide very limited freedom to the network operators or call for only limited regulatory oversight of the network operators. Like Congressman Markey's bill, a recent proposal by Senators Snowe (R-ME) and Dorgan (D-ND) (S. 1917, "The Internet Freedom Preservation Act") prohibits the prioritization of Internet traffic for a fee. Like Congressman Barton's bill, Senator Stevens' bill (S. 2686) declined to authorize any new regulatory oversight, instead calling for further study of the issue.

I. The Contours of the Debate and the Key Elements of a Third Way Solution

Properly understood, there are three distinct issues that relate to the concept of “network neutrality”: transparency, blocking, and tiering.

Transparency. This issue relates to how clearly broadband providers state the policies that govern the uses of their networks. To date, this concern has not yet received much attention, but it is likely to be increasingly important in the future as broadband networks become more differentiated and adopt increasingly varied usage policies.

Blocking. The “blocking” issue concerns whether broadband providers can block or degrade consumer access to certain applications and content. When these concerns first materialized, FCC Chairman Michael Powell set forth the concept of Internet freedom, calling on all providers to allow access to applications and devices that did not harm the network.⁴ Subsequently, the FCC adopted a slightly revised version of these freedoms in an Internet Policy Statement.⁵ Today, most policy observers agree that any effort to block or degrade traffic—unless justified by a legitimate business purpose (such as protecting the network)—should be illegal. Moreover, the FCC arguably has authority to address such practices—and did act to ban the blocking of Vonage’s Voice over Internet Protocol (VoIP) service by Madison River Communications⁶—but, just to be sure, we recommend that its authority be affirmed by a specific legislative mandate to police such conduct.⁷

Tiering. The aspect of network neutrality that currently attracts the lion’s share of attention is the question of tiering.⁸ In particular, this issue addresses whether broadband providers should

⁴ Michael K. Powell, “Preserving Internet Freedom: Guiding Principles for the Industry,” 3 *Journal of Telecommunications and High Technology Law*, 5 (2004) (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf). In response, most (if not all) of the major broadband providers, including Verizon and AT&T and the major telecom and cable trade associations (the U.S. Telecommunications Association and the National Cable Television Association) have publicly committed that they will not degrade or block Internet traffic.

⁵ Appropriate Framework for Broadband Access to Internet over Wireline Facilities, CC Docket No. 02-33, et al. Policy Statement, 20 FCC Rcd 14986 (2005) (hereinafter, “Internet Policy Statement”) (http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf).

⁶ Madison River Communications LLC, Consent Decree, 20 FCC Rcd 4,295 (2005) (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf).

⁷ The FCC’s current authority to oversee Internet broadband providers relies on its so-called “Title I” authority to regulate information services. The scope of that authority is debatable, but there is a powerful argument that the FCC can use this authority to police anticompetitive conduct in the broadband market that would hinder the development of competitive voice, video, and other Internet applications. See Philip J. Weiser, “Toward A Next Generation Regulatory Regime,” 35 *Loyola Law Review* 41 (2003) (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=454380) (arguing for a relatively broad interpretation of Title I authority); see also *National Cable and Telecommunications Association v. Brand X Internet Services*, 125 S. Ct. 2688, 2708 (2005) (“the Commission remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction”); but see James Speta, “FCC’s Authority to Regulate the Internet: Creating It and Limiting It,” 35 *Loyola Law Review* 41 (2003) (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=490122) (arguing for narrow view of Title I authority).

have the right to charge application and content providers for higher quality of service to access their networks and whether they provide higher quality of service guarantees for their own applications than for rival ones.⁹ As noted above, the current legislative debate features a contrast of two extreme approaches—one allowing an unfettered right of broadband providers to prioritize traffic on their networks (the Barton bill approach) and one prohibiting any prioritization of traffic (the Markey bill approach). What is missing from this debate is a third way solution—one that allows broadband providers to provide and charge for enhanced network services while providing for some form of regulatory oversight to address the plausible risk that the current broadband providers (i.e., the cable and telephone companies) will abuse their market power in this market, while also assuring that a reasonably sized, open and unmanaged Internet is available.

II. The Best Efforts Internet vs. the Managed Internet

The Internet that developed based on narrowband, dial-up connections involved an “end-to-end” open architecture that allowed all application developers to make their innovations available to all by placing a software program on a publicly accessible server. This architecture enabled companies like Google and eBay to come out of nowhere—a garage, if you will—to contribute greatly to the Internet economy. Indeed, most (if not all) of the significant Internet innovations were developed or deployed by individuals and firms with no connection to the established providers—ranging from e-commerce (Amazon.com and eBay), to search (Google), to VoIP (Vonage and Skype), to a host of other applications.

The wide open Internet comprised of “best effort” networks (e.g., networks that deliver any and all digital content based on the best guess and effort as to how to forward it along to its final destination) also represents a questionable platform for the deployment of applications requiring quality of service assurances (for example, a two-way video application, like a tele-health application, needing high speeds and low latency). Moreover, a completely open architecture is vulnerable to threats such as those represented by viruses, denial-of-service attacks, and the like. One response to these vulnerabilities and the lack of quality-of-service guarantees has been the development of a host of arrangements by applications companies, such as “caching” content close to the customer. But broadband providers want to offer upgraded, managed networks that enable applications that would fail to perform effectively if offered via the wide open (best-efforts) Internet. In essence, by tagging content, or by hosting it on their own dedicated servers, broadband providers would ensure that their own packets (or those from companies paying for this service) get preferential treatment and reach subscribers faster than content delivered over the “best-efforts” Internet. Under the terms of the current debate, this development—of managed

⁸ As two commentators explained, the concept of tiering is at the essence of the network neutrality debate. As Hahn & Wallsten put it, “[n]et neutrality has no widely accepted precise definition, but usually means that broadband service providers charge consumers only once for Internet access, don’t favor one content provider over another, and don’t charge content providers for sending information over broadband lines to end users.” Robert Hahn & Scott Wallsten, “The Economics of Net Neutrality,” (Washington, DC: AEI Brookings Joint Center for Regulatory Studies, April 2006) (www.aei-brookings.org/publications/abstract.php?pid=1067).

⁹ As all parties in this debate agree, broadband operators should be able to charge consumers for different levels of broadband service. The controversy over “tiering” is thus whether broadband operators should be able to charge application and content providers to access their networks with a higher quality of service.

private Internet networks—is either an opportunity for new innovations or a threat to the Internet’s open environment.¹⁰ In reality, however, it is both.

A. “The End of the Internet As We Know It?” Part I

To listen to some of the more strident proponents of net neutrality, any violation of the best-efforts principle is sacrilege. For Stanford Law Professor Lawrence Lessig, for example, the advent of managed Internet networks and the demise of end-to-end open architecture portends a permanent shift in the Internet and a loss of the freedom and innovation that have characterized it to date.¹¹ In an effort to prevent any evolution away from the current Internet architecture, he endorses a concept of network neutrality embodied in legislation sponsored by Senator Ron Wyden (D-OR) that would ban any varying levels (or tiers) of Internet service available to content or service providers. In practice, this legislation would prohibit a broadband provider from offering special treatment to any application—even if such arrangements facilitate the development of a new product or service (such as those requiring guaranteed levels of service). To Senator Wyden, such a trade-off is warranted because “[c]reating a two-tiered system could have a chilling effect on small mom and pop businesses that can’t afford the priority lane, leaving these smaller businesses no hope of competing against the Wal-Marts of the world.”¹²

Lessig and Wyden’s concerns touch on an important issue—an Internet where an innovator has to ask permission (and pay potentially significant fees) before deploying a new technology threatens the Internet’s golden goose of allowing innovation over an open platform. As the CEOs of several major Internet and information technology companies, including Google, Microsoft and Intel, put it, “innovation without permission” represents “the essence of the Internet.”¹³

But proponents of the Wyden approach also overlook a series of important concerns and unintended consequences that could flow from mandating a single-tiered Internet. For starters, consider the fact that investment in broadband networks is an extraordinarily expensive undertaking. The network providers can, and in our view should, continue to be allowed to partially recoup their investment, not only by charging for different levels of service to their

¹⁰ For a sense of the academic debate, compare Christopher S. Yoo, “Would Mandating Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate,” 3 *Journal of Telecommunications and High Technology Law* 23 (2004) with Tim Wu, “The Broadband Debate, A User’s Guide,” 3 *Journal of Telecommunications and High Technology Law* 71 (2004); see also Christopher S. Yoo & Timothy Wu, “Keeping the Internet Neutral,” *Legal Affairs* (May 1, 2006) (www.legalaffairs.org/webexclusive/debateclub_net-neutrality0506.msp).

¹¹ See Lawrence Lessig, “Testimony Before the Senate Commerce Committee, Hearing on Network Neutrality,” (February 7, 2006) (http://www.lessig.org/blog/archives/Lessig_Testimony_2.pdf).

¹² News Release, “Wyden Moves To Ensure Fairness of Internet Usage With New Net Neutrality Bill,” (March 6, 2006) (http://wyden.senate.gov/media/2006/03022006_net_neutrality_bill.html).

¹³ Letter from Jeff Bezos *et al.* to Senators Ted Stevens & Daniel Inouye (April 26, 2005) (http://netcompetition.org/docs/pronetneut/leaders_042506.pdf). Timothy Berners-Lee, the creator of the World Wide Web, echoed these remarks, explaining that “[...] anyone can build a new application on the Web, without asking me, or Vint Cerf [co-creator of the Internet Protocol], or their ISP, or their cable company, or their operating system provider, or their government, or their hardware vendor.” See Tim Berners-Lee, “Neutrality of the Net” (May 5, 2006) (<http://dig.csail.mit.edu/breadcrumbs/node/132>).

customers, but also by finding other opportunities for recouping revenue from providers of broadband-intensive applications.

The desire of the network operators to find new revenue opportunities can be explained by the concept of price discrimination.¹⁴ For any company to invest a significant amount of money in a fixed cost asset (such as building a movie theatre, developing a blockbuster drug, or deploying a broadband network), there needs to be a payoff at the back end.¹⁵ For movie theatre owners, for example, an effective and consumer-friendly price discrimination strategy is charging a high price for popcorn. By charging a high price, movie theaters are able to identify and serve consumers with sufficient discretionary income to buy popcorn. For other consumers, the high-priced sale of popcorn subsidizes their ability to go to the movies.

Price discrimination gets a bad name in part because it sounds sinister (as does anything with “discrimination” in the title).¹⁶ In the context of net neutrality, discriminatory pricing has gotten a bad name in part because network owners have failed to describe their pursuit of new revenue opportunities in consumer-friendly terms. A case in point is how AT&T CEO Ed Whitacre (then CEO of SBC) described his view of the applications that travel over AT&T’s broadband network:

*Now what [Google and other Internet content providers] would like to do is use my pipes free, but I ain’t going to let them do that because we have spent this capital and we have to have a return on it. So there’s going to have to be some mechanism for these people who use these pipes to pay for the portion they’re using. Why should they be allowed to use my pipes?*¹⁷

The most mystifying part of Whitacre’s explanation for charging applications providers is not just that it is bad public relations—this statement alone helped to fuel regulatory concerns—but that it’s both wrong and bad business. The notion that Google and other applications receive a “free ride” mischaracterizes how the Internet works. In particular, Google and other Internet applications pay fees to upload data onto the public Internet and as such are no more free riding than a driver who drives on a public road and pays with gas taxes. Likewise, broadband

¹⁴ For a fuller explanation of the price discrimination concept, see Philip J. Weiser and Jonathan E. Nuechterlein, *Digital Crossroads*, “American Telecommunications Policy In the Internet Age” 176-77 (2005) (hereinafter “*Digital Crossroads*”).

¹⁵ Hahn & Wallsten, *supra* note 8, at 4 (“The need to cover fixed costs, coupled with society’s interest in having platform operators internalize the benefits that accrue to both sides of the market [i.e., the broadband provider and applications developers], suggests that these providers should have maximum price flexibility to encourage innovation.”).

¹⁶ Indeed, former Clinton administration Secretary of Labor Robert Reich argues that while discriminatory pricing may be “efficient, it’s not democratic.” Robert Reich, “War on the Web,” *TomPaine.com*, May 11, 2006, (www.tompaine.com/articles/2006/05/11/war_on_the_web.php). This argument, however, would also justify bans on all sorts of price discrimination arrangements, including the practice of airlines to provide first and business class services to customers who are willing to pay more.

¹⁷ Patricia O’Connell, “At SBC, It’s All About Scale and Scope,” *Business Week Online* (November 7, 2005) (www.businessweek.com/@n34h*IUQu7KtOwgA/magazine/content/05_45/b3958092.htm).

customers pay fees to download Google and other Internet applications.¹⁸ Moreover, without the Googles of the world—who make broadband networks more valuable by enhancing their functionality—the AT&Ts of the world would have to charge less for broadband Internet access.

In a more sensible (and tactful) move, Richard Notebaert, Qwest's CEO, explained that he views Google and Amazon as valued customers whose applications enhance the value of Qwest's DSL offering to consumers. He proceeded to explain that Qwest should also be able to offer premium services, for additional fees, that guarantee certain levels of service (such as Federal Express offers L.L. Bean for holiday shipping).¹⁹ To date, few deals have been announced, but one can readily imagine win-win deals where a video applications provider contracts for guaranteed delivery speeds (say, 5 megabits per second) to all broadband customers—even if a particular broadband subscriber only pays for a lower level of bandwidth for best efforts Internet access (say, 512 kilobits per second).

B. "The End of the Internet As We Know It?" Part II

In contrast to those who focus on the "innovation without permission" argument and fear the end of the Internet as we know it unless strong net neutrality legislation is enacted, others focus on the Internet's historically unregulated nature and fear that any regulation will strangle its development. For example, the Progress and Freedom Foundation's Randy May worries that network neutrality regulation could "stifle new investment and innovation in broadband networks."²⁰ Based on this concern, May and others decry any form of network neutrality regulation, bolstering their argument with a series of observations about the state of the broadband marketplace.

May and other opponents of regulation defend their position by pointing to the fact that it's common in many markets for companies to offer tiers of service differentiated by price. For example, May notes that if a company would like to deliver physical content to a customer, they can use the lower-cost "best efforts" Postal Service or they can pay more and use USPS Express mail or a host of private shippers like UPS and Fed Ex. But in contrast to the current broadband market, prices for "best-efforts" mail service are regulated and the market for express delivery services is relatively competitive.

In terms of the state of competition, deregulatory opponents of any network neutrality regulation often maintain that competition between broadband providers is a sufficient check on the possibility of anticompetitive conduct. Unfortunately, the current reality of the broadband market is that in most local markets there are only two principal competitors—the incumbent

¹⁸ If anyone is free-riding on AT&T's networks, it is the relatively small number of bandwidth hogs who account for a large share of bandwidth consumed (without paying extra to support their extra network use).

¹⁹ Marguerite Reardon, "Qwest CEO Supports Tiered Internet," *ZDNet News* (March 15, 2006) (http://news.zdnet.com/2100-1035_22-6050109.html).

²⁰ "News Release, PFF's May Warns of Effects of Network Neutrality Position" (Washington, DC: Progress and Freedom Foundation, April 26, 2006) (www.pff.org/news/news/2006/042506maynetneutrality.html).

telephone companies (with their DSL offering) and the incumbent cable companies (with their cable modem offering).²¹

For some critics of network neutrality regulation, the fact that cable and DSL providers are competing quite intensely compensates for the fact that the broadband market is currently a duopoly. We concur that, with only about 35 percent of all households subscribing to broadband, it is currently the case that cable and telephone providers are seeking vigorously to lure new customers. This current state of competition, however, does not mean that once the vast majority of households have adopted broadband, the market will remain competitive; after all, a market with two dominant providers can easily become one where the providers are able to exercise their market power.

Another argument invoked by network neutrality critics is that broadband competition, even if not here yet, is certainly going to emerge. We join this hope, but it is critical to acknowledge that as to the “search for the third broadband pipe” (such as wireless, satellite or broadband over power lines (BPL) providers), it is far from clear when, or even if, such a provider will emerge as an effective competitor. Notably, even under the best of circumstances, it will not be easy for any such provider to emerge and deploy expensive, essentially duplicative networks necessary to compete with the entrenched incumbents, particularly when some customers will be reluctant—in the face of significant costs and hassles associated with switching providers²²—to move from an established incumbent to a new entrant. As to wireless broadband providers in particular, the circumstances are far from ideal, as spectrum policy continues to restrict the available spectrum that can be used by would-be wireless broadband providers.²³

Finally, advocates of the view that there is either plenty of last mile competition or that limited competition doesn’t matter rightly point out that platform providers—Whitacre’s rhetoric aside—benefit from lots of applications that ride on their networks and therefore will not block or

²¹ This is particularly true because presently and for the foreseeable future the “last mile” of broadband services is for most consumers and in most places at best a duopoly with two, and sometimes just one provider. To be sure, the FCC reports that 75 percent of zip codes had three or more broadband providers. (The Federal Communications Commission, “High-Speed Services for Internet Access: Status as of June 20, 2005,” Washington, DC: FCC, May 2006, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf). However, the inclusion of satellite broadband services in this measure skews the actual competitiveness of the market, as satellite is generally not a viable substitute for DSL or cable modem service because of higher price and slower speeds. Consequently, the reality is that most Americans have a choice between one or at best two providers of broadband service.

²² Changing from DSL to cable or vice versa can still be quite time consuming and complicated (setting up networks, wireless routers, email accounts, etc., can be difficult for all but the most tech-savvy consumers). Consumers may also have to buy new modems. Moreover, some broadband consumers maintain their email accounts with their broadband providers (e.g., johnsmith@verizon.com). Unlike number portability on cell phones (where customers can take their number with them when they switch cellular providers), broadband customers who switch providers must get a completely new email and go through the considerable hassle that entails (e.g., emailing all their friends, changing their addresses with businesses they have relations with, etc.).

²³ For a discussion of spectrum regulation and how it limits efficient entry, see Nuechterlein & Weiser, *Digital Crossroads*, *supra* note 14, ch. 7.

treat them unfairly.²⁴ What this argument must recognize, however, is that there are exceptions to this general principle, such as where a company's revenue stream can be endangered by allowing unmitigated competition among unaffiliated applications.²⁵ In the case of VoIP, for example, Madison River Communications—a rural telephone company—resorted to the extreme tactic of blocking Vonage's VoIP service.²⁶ For Madison River, its interest in protecting its current voice-based revenues overrode its interest in providing a more valuable broadband service. Going forward, as Internet-based video options take off, it is quite possible that cable providers (and telephone companies offering video services) may face similar incentives as to video over the Internet offerings. Consequently, with a limited level of competition and a plausible risk of market power abuses, the case for regulatory oversight cannot be categorically dismissed.

The Madison River case aside, the anticompetitive tactics that incumbent providers might use are not limited to the ability to block competitive applications, but also include other means of placing rival services at a distinct disadvantage. In particular, incumbent providers are likely to face the temptation to invest all their resources into a bigger, "pay-to-play" pipe, while keeping (or diminishing) their existing best-effort networks at a level that would make many voice or video Internet services a low quality offering. This would allow incumbents to protect their core businesses (video and voice) from Internet competition. Stated differently, it is quite plausible that broadband providers benefit from artificial scarcity and will face an incentive to confine the open, best-efforts Internet to a dirt side road while the pay-to-play pipe becomes the long-sought information superhighway.

While it is beyond the scope of this paper, it is worth underscoring that the relative lack of broadband competition and low levels of available bandwidth in the United States drive the concerns that animate the network neutrality debate. Unlike many other nations, such as France and Japan,²⁷ which employed a "line-sharing" model (that facilitates multiple DSL competitors using the incumbent's copper local loop), the United States pursued a different strategy.²⁸ The

²⁴ In particular, the concept of "internalizing complementary efficiencies" (or ICE) explains why platform owners have powerful incentives to welcome all applications. See Joseph Farrell & Philip J. Weiser, "Modularity, Vertical Integration and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age," 17 *Harvard Journal of Law and Technology* 85 (2003), (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=452220).

²⁵ For an explanation of this exception (and other exceptions) to the ICE principle (*see* note 24), *see id.* at 105-119.

²⁶ *See* note 6 *supra*.

²⁷ Ikeda Nobuo, "The Unbundling of Network Elements Japan's Experience", RIETI Discussion Paper Series (November 2003) (<http://www.rieti.go.jp/jp/publications/dp/03e023.pdf>); Brian Bremmer, "Hard Truths for Japan's Softbank," *Business Week Online* (August 9, 2004) (www.businessweek.com/magazine/content/04_32/b3895073.htm) (reporting that Japan's Yahoo BB!, which relied on line sharing, provided 10 megabits per second of broadband access at \$20 to \$30 in 2004); Leila Abboud, "How France Became A Leader in Broadband," *Wall Street Journal*, March 28, 2006, at B1 (http://online.wsj.com/public/article/SBJ14351413029509718-W1Q0hKioxsOdZ1Bs_6RCB7hQiBg_20070328.html?mod=hpp_free_today) (explaining that, as a result of France's pro-competition policies, "[o]ver 1.1 million French subscribers pay as low as €29.99 (\$36) monthly for a 'triple play' package called Free that includes 81 TV channels").

issue of net neutrality is largely moot in these nations because consumers in these countries enjoy both a greater level of competition and more bandwidth than in the United States. In Japan, for example, it is not uncommon for metropolitan area customers to obtain DSL speeds of over 40 megabits per second while over 72 percent of homes served by NTT East (one of two major incumbent telephone companies) are passed by 100 megabits per second fiber optic service.²⁹ In essence, network neutrality rules reflect a short-term solution in the absence of a longer-term imperative: more robust competition in broadband markets and the build-out of higher speed, best-efforts data pipes.³⁰

III. A Third Way Model for Network Neutrality

For a long-term solution, policymakers should focus on promoting entry by new broadband providers, such as those using wireless spectrum, and adopting policies to boost the size of best-efforts broadband connections. But even with effective reforms that allow spectrum licenses to be put to their most valuable uses, new wireless broadband providers will not challenge their wired counterparts immediately. Consequently, policymakers should develop a targeted regulatory regime—i.e., carefully crafted so as not to interfere with pro-consumer and reasonable network management policies—to ensure that today's broadband incumbents do not abuse their market power. In particular, we propose a three-prong strategy: (A) effective consumer protection measures, (B) sound competition policy oversight, and (C) conditioned tax incentives.³¹ We discuss each in turn.

A. Consumer Protection

As we mentioned above, we envision increasing concerns as to whether broadband usage policies are clear and well understood (*i.e.*, transparent). To the extent that they are, it is quite possible that the most effective protection for consumers will be their own vigilance about what services network providers offer to them. To facilitate such vigilance, all providers should state clearly to what extent content and services enjoy preferential delivery opportunities and any limitations on the ability of consumers to access the content and services of their choice.

Once broadband providers post policies specifying their service offerings, the FCC will be well-positioned to monitor whether firms comply in practice with their stated policies.³² Indeed,

²⁸ See "Report and Order and Order on Remand and Further Notice of Proposed Rulemaking," *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 19,020 (2003). For a critical evaluation of this decision, see Alfred E. Kahn, "Regulatory Politics as Usual," *Policy Matters* 03-3 (Mar. 2003) (<http://www.aei.brookings.org/policy/page.php?id=127>).

²⁹ (Remarks by Takashi Ebihara at the Educause Policy Conference Washington, DC, April 27, 2006.) Japan is not alone. In France, for example, the telecom company Free provides speeds of up to 18 mbs at very reasonable prices. (Organization for Economic Cooperation and Development, "Multiple Play: Pricing and Policy Trends," Paris: OECD, April 25, 2006)

³⁰ A forthcoming ITIF paper from the authors will discuss these issues and solutions in more detail.

³¹ To our knowledge, the only other call for such a tailored regime is the USC Annenberg Center Principles for Network Neutrality. See www.annenberg.edu/news/news.php?id=13.

a notice and monitoring regime would mirror the Federal Trade Commission's (FTC) approach to Internet privacy, which encouraged firms to be clear about their privacy policies and penalized those firms that failed to comply with them.³³ In the case of our proposal about broadband usage policies (and unlike the FTC privacy regime), the posting of a firm's policies would not be left to its discretion.

A second basic part of our strategy for protecting Internet-enabled innovation would be to require any firm selling "broadband Internet access" to make available a basic level of open, unmanaged Internet access.³⁴ In the narrowband environment, all Internet traffic was unmanaged and delivered on a "best efforts basis." By contrast, we recognize a variety of legitimate reasons for providing differential levels of service, performance, pricing, and prioritization in the broadband environment. Nonetheless, where firms offer "broadband Internet access," we believe that it is critical—both in terms of satisfying consumer expectations and in facilitating innovation by upstart firms—that some not insignificant portion of the broadband bandwidth be available on a best efforts basis.

Over time, we believe that the level of best efforts broadband access will evolve. At present, the FCC defines the level of broadband access as 200 kilobits per second or greater in at least one direction. This definition is already out-of-date and will become ever more so over time. In any event, as part of the regime we envision, it will be critical that the FCC develop an evolving measure of broadband access that providers will deliver on a best efforts basis. We do not, at present, have a well formulated definition for this level of broadband, but believe that the level of bandwidth and associated latency (i.e., delay) be defined with an eye to supporting the basic uses of Internet that will evolve and grow vary over time. As an initial matter, however, we believe that what can be called broadband should be closer to 2 megabits per second download speed than the current 200 kilobits per second level.³⁵ Under the regime we propose, broadband providers

³² Because broadband Internet is an "information service" and not a "common carrier telecommunications service," the Federal Trade Commission (FTC) also enjoys regulatory oversight authority and could begin such a monitoring program. See "Letter from Deborah Majoras, Federal Trade Commission Chairwoman, to Representative James Sensenbrenner, Chairman of the House Judiciary Committee" (April 14, 2006); Raymond L. Gifford, "Let The FTC Do It! Maybe It Already Can," *Progress Snapshot*, Release 2.12 (April 2006) (<http://www.pff.org/issues-pubs/ps/2006/ps2.12ftc.html>). We do not evaluate here whether the FTC would be a better agency to superintend the regime we have in mind, but note that such an evaluation calls for a weighing of the relative importance of the FTC's capabilities for managing adjudications versus the FCC's technological expertise. Moreover, we do not discuss whether a dual jurisdictional regime (where, say, the FCC and FTC would both enforce company privacy policies) would be appropriate.

³³ See Steven Hetcher, "The FTC As An Internet Privacy Norm Entrepreneur," *Vanderbilt Law Review* 53, 2041 (2000).

³⁴ The USC Annenberg Network Neutrality principles called this "Basic Access Broadband," defining it as "a meaningful, neutral Internet connectivity service." See Annenberg Center Releases Principles for Network Neutrality (March 27, 2006) (<http://www.annenberg.edu/news/news.php?id=13>).

³⁵ According to the FCC, as of June 30, 2005, 54 percent of high-speed lines provided speeds of at least 2.5 megabits per second in the faster direction (usually the download direction). The Federal Communications Commission, High-Speed Services for Internet Access: Status as of June 20, 2005, (Washington, DC: FCC, May 2006, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf).

with market power that do not meet that FCC-defined requirement would be prohibited from calling any of their services "broadband."³⁶

B. Competition Policy

The second prong of our vision for network neutrality regulation would be to charge the FCC with an after-the-fact competition policy enforcement mandate akin to the antitrust laws.³⁷ This approach would differ from the agency's classic before-the-fact rulemaking mission (as well as the approach of the Markey and Wyden bills, which emphasizes front-end rules).³⁸ The problem with rules that limit behavior before-the-fact is that they often sweep broadly and address speculative harms. Moreover, such rules create incentives for gamesmanship, such as an effort to classify managed video services delivered over a managed Internet as "cable service" and thus outside the scope of any network neutrality regulations. In short, this approach would provide valuable flexibility, viewing discriminatory conduct by providers with market power with a degree of skepticism, but judging such conduct on a case-by-case basis.

As a starting point for the competition policy oversight we have in mind, the FCC could rely on the set of policy principles that Chairman Powell announced in his Four Freedoms' initiative and that the agency later adapted to its Internet Policy Statement.³⁹ These principles recognize that it is indeed possible that incumbent broadband providers would respond to Internet-enabled applications such as Vonage's VoIP service by using the "dodgy competitive tactic" of "slow[ing] down Vonage's service" as well as "give network precedence to their own revenue-generating services"⁴⁰ or by charging competitors uncompetitive rates to send data over their managed network. By promising prompt and effective enforcement and consequences for such action, the FCC can ensure that upstarts like Vonage can succeed or fail on their own merits and not on account on anticompetitive conduct.

To appreciate how our model would work in practice, consider the case of an allegation by Amazon.com that Barnes & Noble was receiving a quality of service guarantee not offered to it

³⁶ We propose that the FCC calculate the average speed for subscribers to particular broadband providers.

³⁷ This approach would be along the lines of the model outlined in Philip J. Weiser, "Toward A Next Generation Regulatory Regime" 35 *Loyola Law Review* 41 (2003) (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=454380).

³⁸ Our approach would, to some degree, parallel the model suggested by Judiciary Chairman Sensenbrenner in the "Internet Freedom and Nondiscrimination Act of 2006" (H.R. 5417). That bill, however, takes the exceptional step of amending the antitrust laws with a specific standard for broadband networks. In our case, we propose a regulatory strategy that builds off both antitrust's institutional model and relies on competition policy principles. In so doing, we decline to condemn all discriminatory arrangements as per se illegal, but rather would do so only if the broadband provider could not convincingly justify any such arrangement as a pro-competition and efficiency-enhancing business practice.

³⁹ Michael K. Powell, "Preserving Internet Freedom: Guiding Principles for the Industry," 3 *Journal of Telecommunications and High Technology Review*, 5 (2004) (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf); FCC Internet Policy Statement, *supra* note 5.

⁴⁰ Daniel Klein, "Why Vonage Is Just A Fad," *ZDNet* (May 19, 2004) (http://techupdate.zdnet.com/techupdate/stories/main/Why_Vonage_Just_Fad.html?tag=tu.arch.link).

on electronic book downloads. To remedy this state of affairs, Amazon could commence a proceeding—that would be governed by strict time limits—alleging that the selective offering of this quality-of-service guarantee was anticompetitive. To the extent that the broadband provider could justify this preferential arrangement as a legitimate business arrangement—say, that there was only sufficient bandwidth to provide this service to one of the two firms—it could be upheld. Similarly, to the extent that a firm lacked market power, that would be a viable defense against the charge that it excluded competition. If a firm could not offer a convincing justification, the practice would be condemned and the FCC would be authorized not only to enjoin the anticompetitive practice, but to penalize the firm that took the condemned action. Notably, this model of regulation (unlike the Wyden bill) would allow quality-of-service assurances to be offered for payment, but such assurances must be offered universally unless a firm has a legitimate business purpose for offering it only on an exclusive basis. Significantly, this standard calling for reasonable access to prioritized service delivery (even for a fee) would also apply to the level of prioritization offered to an incumbent's affiliated application (say, its VoIP product).⁴¹

Like the antitrust laws, it is possible that certain discriminatory practices will be condemned as per se illegal. Such a condemnation, however, should only come with a better understanding of the actual effect of the practice at issue. Even port blocking, for example, might be defensible under certain circumstances. In particular, where a new entrant without market power blocked traffic, there might be a reason to believe that such behavior reflected a legitimate business purpose. In the case of Clearwire, an upstart wireless broadband provider, it decided to block rival Voice over Internet services because this practice enabled it to receive funding from Bell Canada in return for Bell Canada's exclusive right to offer VoIP services on Clearwire's network. To the extent that Clearwire would not be able to operate a wireless broadband service at all without such funding, consumers are better off with the presence of a competitor—even one who blocks rival VoIP offerings—than with no broadband competitor at all.

In short, our competition policy model envisions that the FCC can superintend an antitrust model of regulation.⁴² This model would require that the FCC manage all relevant proceedings on an expedited basis and under a rule-of-law model (as opposed to a rule-by-lobbying and political compromise model). Under such a model, a firm that suspected discrimination in favor of a competitor could commence a proceeding to challenge that practice and be assured of a timely response. As we noted at the outset, the FCC arguably possesses the authority today (under its ancillary jurisdiction) to implement this model of regulation, but it would be prudent for Congress to specifically confirm this authority and embrace this form of regulation.

In recommending this new regime, we recognize that it envisions a different role for the FCC than its traditional regulatory function. In particular, we believe that the FCC should implement a competition policy and consumer protection-based regime as a neutral referee and an

⁴¹ We recognize that overseeing non-discriminatory access to an incumbent's broadband pipe for its own services may well present regulatory challenges. To the extent that such challenges cannot be addressed through the case-by-case model we have in mind, it may well be necessary to adopt more aggressive forms of oversight (such as accounting safeguards or the use of benchmarks to "impute" the terms and conditions offered to an incumbent's affiliated service).

⁴² For a further explanation, see Nuechterlein & Weiser, *Digital Crossroads*, *supra* note 13, ch. 13.

effective adjudicator. Given its lack of experience in these areas, we acknowledge that it is an open question whether or not the FCC can perform this new role effectively. Notably, such a new role may well require significant institutional reforms of how the agency operates. Moreover, because it is possible that even a reformed FCC will be unable to perform this role effectively, Congress should focus on the agency's institutional limitations, closely monitor its performance in carrying out the assigned duties we propose for it, and, if necessary, consider assigning these functions to a different agency (such as the Federal Trade Commission).

C. Depreciation and Tax Incentives

Investment in broadband networks exhibit what economists call positive externalities—that is, the investments generate economic and social benefits greater than those captured by the company making the investment. For example, a widely deployed 20 megabits per second network would enable a whole host of applications, including telemedicine, telecommuting, distance learning and others to emerge or grow. In markets like this where the social benefits (or costs) differ from private it is not uncommon for public policy to respond, often with tax incentives (in the case of positive externalities) or taxes (in the case of negative externalities). For example, because companies cannot capture all the positive returns from conducting research and development (R&D), Congress put in place the R&D tax credit.

To spur more ubiquitous, high-speed broadband deployment, Congress should do the same today. We suggest two actions. First, Congress should allow companies investing in broadband networks to expense new broadband investments in the first year. Currently, companies must depreciate telecommunications network investments over a period of 15 years. Allowing companies to write off the investment in the first year reduces the costs of making these investments and spurs faster deployment of higher speed networks. Other nations have used this approach to successfully spur deployment of advanced telecommunications infrastructures. For example, the Japanese government allowed NTT to rapidly write-off the cost of its new fiber broadband networks. The Korean government did the same. Austria and Sweden have allowed individual consumers to deduct broadband expenses from their taxes. And just recently, the Canadian government recently boosted by 50 percent their tax incentives for investments for broadband, Internet, and other data network infrastructure equipment.

Second, Congress should extend the current temporary moratorium on federal, state and local broadband-specific taxes and make it contingent upon broadband providers providing the level of open, un-managed Internet service as defined by the FCC. Taxing broadband is a bit akin to our national policy regarding smoking: we want people to smoke less but we subsidize tobacco farmers to grow tobacco. In the case of broadband, we want people to use more and faster broadband, but we sometimes tax them when they do.

Both of these incentives—first year expensing and a broadband tax moratorium—would be linked to broadband network company behavior. To be able to sell untaxed broadband (and as described above, to market it as “broadband”), providers would have to offer a best-efforts, open Internet data pipe to their customers in line with the FCC definition. To avoid having to pay these incentives (*i.e.*, avoided taxes) back to the government, the companies would need to continue to expand their open broadband pipe to meet the evolving FCC definition. Under our proposed regime, companies that did that over the next ten years would have met the obligation.

IV. Conclusion

The Internet has evolved over time and will continue to do so. To say, as the *New York Times* did in an editorial, that charging for higher quality-of-service assurances would endanger the democratic character of the Internet is a considerable overstatement.⁴³ As the *Washington Post* stated in its editorial on the topic, the Internet is a very democratic medium, but not one without advantages for the major players.⁴⁴ Nonetheless, there is a reasonable concern that the changing nature of the Internet could threaten the development and deployment of new services and content offerings. Such changes, however, are not necessarily imminent and the adoption of overly aggressive prophylactic rules could limit the opportunity for broadband providers to capture revenues to support their continuing infrastructure investments as well as give rise to unintended consequences (such as interminable legal proceedings). Consequently, we recommend a more focused and carefully tailored regulatory response to ensure that the Internet remains an open platform for innovation and a dynamic medium.

⁴³ Editorial, "Keeping A Democratic Web," *New York Times*, May 2, 2006, at A24 (www.nytimes.com/2006/05/02/opinion/02tue3.html)

⁴⁴ Notably, as the *Washington Post* explained, major companies already use "caching" services (using technology sold by Akamai and other firms) to ensure more effective delivery of their content than the start-up companies using a single server to provide content to all around the world. Editorial, "The Eden Illusion," *Washington Post*, March 14, 2006, at A14 (<http://www.washingtonpost.com/wp-dyn/content/article/2006/03/12/AR2006031200808.html>). What the *Post* did not note, however, is that there is more competition in the market for caching and other network management services than in the broadband marketplace.

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